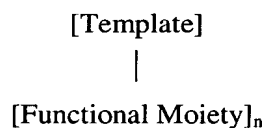


WHAT IS CLAIMED IS:

1. A method for inhibiting scale, film and/or spot formation on a surface treated with an aqueous solution containing calcium and/or magnesium ions, the method comprising contacting the surface with a wash medium comprising the aqueous solution and a composition containing a functionalized material, wherein the functionalized material is derived from non-ethylenic based or vinyl based polymers or oligomers, and the functionalized material satisfies Test Protocol I.

2. The method according to Claim 3 wherein the functionalized material has the formula:



wherein the functional moiety is independently selected from the group consisting of: sulfonate moieties, carboxylate moieties and mixtures thereof; and n is from 1 to about 2000; and the template is a non-ethylenic based or vinyl based polymer or oligomer.

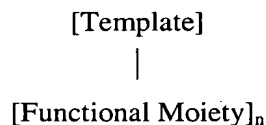
3. The method according to Claim 2 wherein the template is selected from the group consisting of: carboxymethyl cellulose polymers, cellulose ether polymers, other modified cellulose polymers, lignins, polyvinylalcohols, polyaspartates, modified starch, modified saccharides, gums, and mixtures thereof.

4. The method according to Claim 2 wherein the functionalized materials has a molar ratio of sulfonate moieties to carboxylate moieties ranges from about 1:30 to about 30:1.

5. The method according to Claim 2 wherein the functionalized materials has a molar ratio of sulfonate moieties to carboxylate moieties ranges from about 1:10 to about 10:1.

6. The method according to Claim 2 wherein the functionalized material further comprises a nonionic functional moiety selected from the group consisting of alkoxy moieties, alkyl moieties, ester moieties and mixtures thereof.

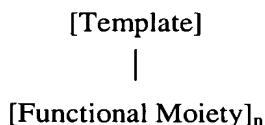
7. The method according to Claim 6 wherein the functionalized material has a molar ratio of sum of sulfonate and carboxylate moieties to nonionic moieties ranges from about 1:20 to about 20:1.
8. The method according to Claim 2 wherein the functional moieties are chemically bonded to the polymer.
9. A composition for inhibiting scale, film and/or spot formation on a surface treated with an aqueous solution containing calcium and/or magnesium ions, the composition comprising:
- a) a functionalized material produced by a process comprising functionalizing a non-ethylenic based material or a vinyl based material with a functional moiety such that the functionalized material satisfies the Test Protocol I;
 - b) a builder; and
 - c) one or more adjunct ingredients.
10. The composition according to Claim 9 wherein the functionalized material has the formula:



wherein the functional moiety is independently selected from the group consisting of: sulfonate moieties, carboxylate moieties and mixtures thereof; and n is from 1 to about 2000; and the template is a non-ethylenic based or vinyl based polymer or oligomer.

11. The composition according to Claim 10 wherein the template is selected from the group consisting of: carboxymethyl cellulose polymers, cellulose ether polymers, other modified cellulose polymers, lignins, polyvinylalcohols, polyaspartates, modified starch, modified saccharides, gums, and mixtures thereof.
12. The composition according to Claim 10 wherein the functionalized materials has a molar ratio of sulfonate moieties to carboxylate moieties ranges from about 1:30 to about 30:1.

13. The composition according to Claim 10 wherein the functionalized materials has a molar ratio of sulfonate moieties to carboxylate moieties ranges from about 1:10 to about 10:1.
14. The composition according to Claim 10 wherein the functionalized material further comprises a nonionic functional moiety selected from the group consisting of alkoxy moieties, alkyl moieties, ester moieties and mixtures thereof.
15. The composition according to Claim 14 wherein the functionalized material has a molar ratio of sum of sulfonate and carboxylate moieties to nonionic moieties ranges from about 1:20 to about 20:1.
16. The method according to Claim 10 wherein the functional moieties are chemically bonded to the polymer.
17. The composition according to Claim 9 wherein the composition is an automatic dishwashing composition or a fabric care composition.
18. The composition according to Claim 9 wherein the adjunct ingredient comprises an ingredient selected from the group consisting of: selected from the group consisting of builders, enzymes, bleaches, anti-foaming agents, alkalinity agents, and mixtures thereof.
19. The composition according to Claim 9 wherein the bleaching agents are selected from the group consisting of: chlorine bleaching agents, oxygen bleaching agents and mixtures thereof; and the builders are selected from the group consisting of: phosphate builders, citric acid builders, zeolite builders and mixtures thereof;
20. A functionalized material derived from a non-ethylenic based material or a vinyl based material, wherein the functionalized material has the formula:



wherein the functional moiety is independently selected from the group consisting of: sulfonate moieties, carboxylate moieties and mixtures thereof; n is from 1 to about 2000; the template is a

non-ethylenic based or vinyl based polymer or oligomer such that the functionalized material satisfies the Test Protocol I.